DEPARTMENT OF CONSERVATION

Managing California's Working Lands

PUBLIC AFFAIRS OFFICE

801 K STREET • MS 24-07 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-1886 • **FAX** 916 / 323-1887 • **TDD** 916 / 324-2555 • **WEB SITE** conservation.ca.gov

FOR IMMEDIATE RELEASE
NR#2011-01
February 10, 2011

Contact: Ed Wilson
Don Drysdale
Carrie Reinsimar

REGULATORY EARTHQUAKE FAULT ZONE MAPS, GEOLOGIC MAPS AVAILABLE FOR VIEWING ONLINE FOR THE FIRST TIME

SACRAMENTO – Alquist-Priolo Earthquake Fault Zone Maps, designed to protect lives and property by directing construction away from known surface fault traces, are now available online. Previously, the maps developed by the California Geological Survey (CGS) were available only on paper or for purchase on a CD. A number of CGS geologic maps have been made available online for the first time as well.

"If a user goes to our Web site (www.quake.ca.gov/gmaps/ap/ap_maps.htm) and enters an address, he or she will be directed to the correct Alquist-Priolo zone map," said Dr. John Parrish, the State Geologist of California and head of CGS. "Up until now, the issue for people wanting to use the maps has been determining which one of the 547 maps we've produced suits their needs. We've employed Google Maps address-matching technology to solve that problem."

On the Web site, a map of California is overlain by boxes that represent every quadrangle (an area of roughly 62 square miles) covered by an Earthquake Fault Zone map. Clicking on a box allows a user to view a PDF version of the map or to download the PDF image or the GIS files for that map.

If property is located in an Earthquake Fault Zone, that fact must be disclosed to a potential buyer before the sales process is complete. If the property is not developed, a fault study may be required before the parcel can be subdivided or structures permitted. Landowners should check with their local permitting agency for specific requirements. If a property is developed, a geologic study is unnecessary unless an extensive addition or remodeling project is planned.

"California is earthquake country," Parrish said. "If people are purchasing property, they need to know whether they're in an Earthquake Fault Zone, and thus are in an area of increased risk to surface fault rupture. Using this tool, they can find out whether they're in a community that has been zoned. If not, they don't have to think about it anymore. If they are in a zoned city or county, then they can take a closer look at the maps."

-- continued --

EARTHQUAKE ZONE MAPS NOW AVAILABLE ONLINE 2-2-2

Earthquake Fault Zones are shown in a different shade than the rest of the map. Cities and counties have the responsibility of determining whether or not a parcel of land lies within an Earthquake Fault Zone, so if a property is close to a zone boundary, landowners are advised to check with their local lead agency.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that did tremendous damage.

"Surface rupture is the most easily avoided seismic hazard," Parrish noted. "Our maps cover most of the state's major faults, impacting 36 counties and 104 cities."

The maps are distributed to all affected cities, counties, and state agencies. Local agencies must regulate most development projects within the zones. Projects include all land subdivisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. Local agencies can be more restrictive than state law requires.

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If a fault on which there has been activity in the last 11,000 years is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet).

There have been 28 earthquakes associated with surface faulting in California since the first Alquist-Priolo maps were issued in 1974. Although most of the ground surface displacement associated with these events was relatively minor, there have been seven earthquakes with surface fault offsets greater than a foot. Earlier earthquake records suggest that earthquakes with ground surface displacement equal to or greater than three feet occur once every 15 to 20 years in California.

Also available online are the latest state geologic map and fault activity maps, released last year, and 10 regional geologic maps – covering Chico, Sacramento, San Bernardino, San Francisco-San Jose, Santa Rosa, Weed, Lake Tahoe, Monterey, Oceanside and San Diego -- created from 1981 to the present. The 27 maps comprising the Geologic Atlas of California, produced between 1958 and 1969, will be available online soon.

"The Google Maps interface we use allows people to look at these maps as they normally would, as if they were looking for directions," said CGS Supervising Engineering Geologist Chris Wills. "They can see not only city limits and street names, but also the underlying geology in the event they're curious about what they're standing on."

###